Map ID MAP FINDINGS

Direction Distance

Distance EDR ID Number
Elevation Site EDR ID Number

BJ315 DDC BROOKLYN EAST 13 NY Spills S113915729
WSW 2012 NEPTUNE AVE N/A

1/4-1/2 0.487 mi.

2571 ft. Site 2 of 3 in cluster BJ

BROOKLYN, NY

 Relative:
 SPILLS:

 Higher
 Name:
 DDC BROOKLYN EAST 13

 Actual:
 Address:
 2012 NEPTUNE AVE

 0 ft.
 City,State,Zip:
 BROOKLYN, NY

 Spill Number/Closed Date:
 1305932 / 2016-02-22

 Facility ID:
 1305932

 Facility Type:
 ER

 DER Facility ID:
 441632

 Site ID:
 486521

 DEC Region:
 2

 Spill Cause:
 Vandalism

Spill Class: C4 2401 SWIS: Spill Date: 2013-09-05 Investigator: **AXDORONO** Referred To: Not reported Reported to Dept: 2013-09-05 CID: Not reported Water Affected: Not reported Spill Source: Unknown Spill Notifier: Other Cleanup Ceased: Not reported Cleanup Meets Std: False Last Inspection: Not reported Recommended Penalty: False **UST Trust:** False Remediation Phase: 0

Date Entered In Computer: 2013-09-05
Spill Record Last Update: 2016-02-22
Spiller Name: Not reported
Spiller Company: UNKNOWN
Spiller Address: Not reported
Spiller Company: 999
Contact Name: DAVID HO

DEC Memo: "09/09/13-Hiralkumar Patel. 10:34 AM:- received call from Manny from NYC Sanitation, he mentioned that its Sanitation property, during

repair of pot hole, contractor noted soil contamination. Manny will

call back with more information about current and historical use of the site, including information about any tank systems on site. Manny NYC Sanitation Ph. (646) 885-4537 case assigned to DEC Zhune. 09/9/13-Zhune spoke to Neil Glagher 718-334-9117. He said while doing excavation to repair a broken catch basin they found soil contaminated. They stopped to continue digging. There are monitoring wells in the area where contaminated soil was found. 11/05/13-A CSL letter was sen to: Neil Gallagher, Director Bureau of Building Maintenance 52-35 58th Street Woodside NY 11377 Requesting the following: 1. Confirmatory effective removal of contamination. 12/04/2013: This spill case was transferred to A. Doronova. - AD Called and spoke with S. Frank of LiRo (DDC cleaning up the spill). Informed him that this spill case was assigned to me. Requested to prepare investigation work plan. AD 07/24/2014: Received an Semi-Annual IRM MOnitoring report for the period of December 2013 to May 2014. Will review. AD 08/07/2014: Reviewed the report. It states that this spill case (Spill No. 1305932) was reported to NYSDEC on

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September 5, 2013, when an oil stained soil was observed during a floor drain/catch basin excavation. On December 23, 2013, LiRo collected five (5) soil samples (W1 through W4 and Bottom) from a DSNY managed catch-basin excavation related to Spill No. 1305932. The excavation was completed through an approximate 10-foot by 10-foot cut through the interior garage floor to a depth of approximately 6.5 feet below ground surface (bgs). The four sidewall samples (i.e. W1 through W4) were collected from approximately 5.5 to 6.0 feet bgs and the Bottom sample was collected from approximately 6.5 to 7.0 feet bgs. A total of approximately 5.8 tons of soil were removed from the excavation and transported for offsite disposal. All December 2013 soil samples were submitted for analysis of the CP-51 Soil Cleanup Guidance (CP-51) list of VOC and SVOCs and results were compared to CP-51 Soil Cleanup Levels (SCLs) criteria. One or more CP-51 list VOCs were reported at concentrations above SCLs in three (3) of five (5) December 2013 soil samples: W1, 5.5 to 6.0 feet bgs; W2, 5.5 to 6.0 feet bgs and W4, 5.5 to 6.0 feet bgs. Reported total VOs ranged between non-detect in W3 sample to 27,000 ug/kg in the W2 sample. One or more CP-51 list SVOCs were reported at concentrations above SCLs in four (4) of five December 2013 soil samples: W2, 5.5 to 6.0 feet bgs; W3, 5.5 to 6.0 feet bgs; W4, 5.5 to 6.0 feet bgs Bottom, 6.5 to 7.0 feet bgs. Reported total SVOC concentrations ranged between 15,560 ug/kg in the Bottom sample to 116,500 ug/kg in the W2 sample. Summary Recent (December 2013) and historic (January 2008) soil sample results report CP-51 list VOCs and SVOCs at low (i.e. less than 25,000 ug/kg TVOCs and less than 50,000 ug/kg TSVOCs) concentrations that are typical for urban fill. Based on April 2014 groundwater sample results, reported CP-51 list VOCs and SVOCs in Site soils do not contribute to groundwater dissolved phase contamination. LiRo states that, based on recent (December 2013) and historic (January 2008) soil sample results, VOCs are generally absent or at low concentrations (i.e. less than 25,000 ug/kg total VOCs) in Site soils. Similarly, SVOCs are found at low concentrations (i.e. less than 50,000 ug/kg total SVOCs) which is within the typical concentration range for urban soils. Based on April 2011 and April 2014 groundwater sample results, reported CP-51 list VOCs and SVOCs in Site soils do not contribute to groundwater dissolved phase contamination. Given the reported low concentrations in 2008 and 2013 soil sample results, LiRo concludes that no additional soil sampling is warranted in relation to Spill No. 1305932 at this time. AD

03/13/2015: Received the following e-mail from LiRo: Ms. Doronova, The Interim Remedial Measure (IRM) Monitoring and Semi-Annual Monitoring Report for Spill Nos. 1109339 and 1305932, DSNY Brooklyn East 13, 2012 Neptune Avenue, Brooklyn, New York, has been uploaded for your review to LiRo s website on March 13, 2015. A link to the website is included:

https://private.filesanywhere.com/fs/v.aspx?v=8c7165b95c979f799fa1&C=573 The report includes a proposal that requires your review and approval for consolidation of Spill Number 1305932 into Spill Number 1109339. The report will remain on the website for a period of one year. A hard copy has been mailed to your office. Please feel free to contact Steve Frank at franks@liro.com or myself if you need additional information. Sincerely, Martha DeLozier Geologist/Project Coordinator The LiRo Group Program/Construction Managers - Engineers - Architects 690 Delaware Avenue - Buffalo, New York - 14209 716.882.5476 [T] - 716.882.9640 [F] - www.liro.com Will review. AD 04/03/2015: Reviewed the report. It states that EFR: For the monitoring period (June 2014 to December 2015) approximately 4,041 gallons of total fluids were removed from site wells by EFR. For the

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current monitoring period ten (10) EFR events were conducted. A 2nd event for July 2014 was not conducted due to site inaccessibility and after the 1st event for November 2014 due to NYCDDC budgetary constraints. Starting in January 2015, product removals will be completed by hand-bailing (i.e. wells with 2-inch or greater inner diameters) and/or eristaltic pumps (i.e. wells with less than 2-inch inner diameters) until the resumption of removal by EFR. Soil conditions: Oily soil was observed during the excavation of a Site catch-basin in September 2013 and subsequently Spill No. 1305932, was assigned to the site. LiRo coordinated with DSNY to collect soil samples from the final excavation. During this monitoring period five (5) soil samples (i.e. W1 through W4 and Bottom) were collected from a DSNY managed catch-basin excavation. All December 2013 soil samples were submitted for analysis of the NYSDEC s October 21, 2010, Final Commissioner Policy, CP-51 Soil Cleanup Guidance (CP-51) list of VOC and SVOCs and results were compared to CP-51 Soil Cleanup Levels (SCLs) criteria. One or more CP-51 list VOCs were reported at concentrations above SCLs in three (3) of five (5) December 2013 soil samples: W1, 5.5 to 6.0 feet bgs; W2, 5.5 to 6.0 feet bgs and W4, 5.5 to 6.0 feet bgs. Reported total VOCs ranged between ND in W3 sample to 27,000 ug/kg in the W2 sample. One or more CP-51 list SVOCs were reported at concentrations above SCLs in four (4) of five December 2013 soil samples: W2, 5.5 to 6.0 feet bgs; W3, 5.5 to 6.0 feet bgs; W4, 5.5 to 6.0 feet bgs and Bottom, 6.5 to 7.0 feet bgs. Reported total SVOC concentrations ranged between 15,560 ug/kg in the Bottom sample to 116,500 ug/kg in the W2 sample. Summary: On December 17, 2014, LiRo conducted groundwater gauging at accessible Site wells. The performance of field activities has been impacted at the site due to NYCDDC delays in funding for the new PW348-64 contract. As a result of these delays, groundwater sampling and November/December 2014 EFR events were not completed during this monitoring period. EFR Between June 2014 and December 2014 ten (10) EFR events were conducted in an effort to induce mobilization and removal of residual free-phase product in Site wells. Approximately 4,041 gallons of total fluids were removed from Site wells for the monitoring period. Overall, product thicknesses were typically below in EW-02 and EW-05 with an overall monitoring period average of 0.06 feet, when compared to the previous monitoring periods. The distinct decreasing trend in

measured product thicknesses, from the December 2012 high to the end of this monitoring period at the site in monitoring and extraction wells EW-08, EW-09, EW-13 and MW-12, has been maintained. Based on the analysis and conclusions presented above, LiRo recommends the following: Actions The following actions will be conducted as part of the routine monitoring program until proposals below are approved by the NYSDEC: - Maintain schedule of bi-monthly (i.e. twice a month) Site-wide product gauging and EFR events at wells with observed product (current or if observed within the previous year). - Prepare and submit Semi-Annual Monitoring Reports with recommendations for changes (as necessary) to the Site Monitoring Program. - Collect semi-annual groundwater samples from accessible Site wells listed in the SMP and submit samples for analysis of the NYSDEC CP-51 list of VOCs. Proposals: The following proposals require NYSDEC approval: 1) Consolidate Spill Nos. 1305932 and 1109339 into one Spill No. (e.g. 1109339). AD As it was discussed and agreed at the quarterly meeting with DDC and LiRo, consolidation of the spills will be postponed till groundwater samples from the new spill will be collected. AD 12/21/2015: Received the following e-mail from LiRo: Ms. Doronova, The Interim Remedial Measure (IRM) Monitoring and Semi-Annual Monitoring Report for Spill Nos. 1109339 and 1305932, DSNY Brooklyn

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East 13, 2012 Neptune Avenue, Brooklyn, New York, has been uploaded for your review to LiRo s website on December 21, 2015. A link to the website is included:

https://private.filesanywhere.com/fs/v.aspx?v=8c7165b95c979f799fa1&C= 573 The report includes a proposal that requires your review and approval for consolidation of Spill Number 1305932 into Spill Number 1109339. The report will remain on the website for a period of one year. A hard copy has been mailed to your office. Please feel free to contact Steve Frank at franks@liro.com or myself if you need additional information. Sincerely, Martha DeLozier Geologist/Project Coordinator The LiRo Group Program/Construction Managers - Engineers - Architects 690 Delaware Avenue - Buffalo, New York - 14209 716.882.5476 [T] - 716.882.9640 [F] - www.liro.com Will review. AD 01/25/2016: Reviewed the report. It states that for the reporting period, routine semi-annual groundwater gauging and Site-wide sampling was completed by LiRo on May 14, 2015, and September 23 to 24, 2015. A supplemental groundwater sampling event was also completed on January 23, 2015, in lieu of the 2nd 2014 sampling round not completed due to NYCDDC delays in funding for the new PW348-64 contract. For each of the three sampling rounds, LiRo conducted water level gauging at accessible Site wells. For the January 2015 and May 2015 sampling rounds LiRo collected eight (8) groundwater samples. For the September 2015 sampling round LiRo collected nine (9) groundwater samples. During the September 23, 2015, groundwater gauging event groundwater was observed between 3.44 and 5.41 feet bgs. Groundwater elevations ranged between -0.37 and 0.41 feet AMSL. Free phase product was detected in two (2) gauging locations: EW-09 and MW-02R, with thickness ranging between 0.17 feet (EW-09) and 0.19 feet (MW-02R). Groundwater Total VOC Trends: A review of total VOCs trends in the January 2015, May 2015 and September 2015 shows very low (i.e. less than 10 ug/L) concentrations of dissolved phase VOCs in Site groundwater, with all sampled locations reporting all VOCs below their respective AWQSGVs in all three sampling rounds. During the August 6, 2015, quarterly meeting with NYCDDC, NYSDEC and LiRo, the NYSDEC expressed concern that VOCs observed in the December 2013 catch-basin soil samples may be impacting groundwater and requested

the completion of site-wide groundwater sampling. On September 11, 2015, two (2) replacement monitoring wells (MW-02R and MW-04R) were installed at the Site and both wells were developed on September 14, 2015. EFR: The performance of field activities had been impacted at the Site due to NYCDDC delays in funding for the new PW348-64 contract and as a result of these delays, EFR events were not completed between January 2015 and March 22, 2015. On March 2, 2015, March 9, 2015 and March 16, 2015, LiRo conducted hand-bailing and product removal using a peristaltic pump. However, due to the relatively small volumes removed (i.e. typically less than 5 gallons), the March 2015 removals via peristaltic pump are not included in EFR total fluid volume estimates. EFR events resumed at the Site on March 23, 2015. For the monitoring period approximately 16,685 gallons of total fluids were removed from Site wells by EFR. For the current monitoring period fifteen (15) EFR events were conducted. Overall, product thicknesses were within historic averages and with an overall monitoring period average of 0.03 feet, when compared to the previous monitoring periods. A June 2015 spike in the thickness measured in MW-12 warrants continued monitoring and EFR. September 2015 Replacement Well Soil Samples: A total of six (6) soil samples were collected from two (2) monitoring well soil borings (MW-02R and MW-04R) for analysis of the NYSDEC s October 21, 2010, Final Commissioner Policy, CP-51 Soil Cleanup Guidance (CP-51) list

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of VOC and SVOCs and results were compared to CP-51 Soil Cleanup Levels (SCLs) criteria. Two (2) VOCs were reported above their respective NYSDEC SCLs in one (1) sample (MW-02R, 7.0 to 8.0 feet bgs). Total VOC concentrations ranged between below the laboratory reporting limit (i.e. nondetect [ND]) in the MW-04R sample from 14.0 to 15.0 feet bgs and 39,020 mg/kg in the MW-02R, 7.0 to 8.0 feet bgs sample. Seven (7) SVOCs were reported above their respective NYSDEC SCLs in one (1) sample (MW-02R, 6.0 to 7.0 feet bgs). Total SVOC concentrations ranged between ND in 2 samples (MW-02R, 14.0 to 15.0 feet bgs and MW-04R, 14.0 to 15.0 feet bgs) and 102,470 ?g/kg in the MW-02R, 6.0 to 7.0 feet bgs sample. Given the generally low concentrations in soil sample results, no additional soil sampling is warranted in relation to Spill No. 1305932 at this time. Summary: With few exceptions, recent (September 2013/2015) and historic (January 2008) soil sample results report CP-51 list VOCs and SVOCs at generally low (i.e. less than 25,000 ug/kg TVOCs and less than 50,000 ug/kg TSVOCs) concentrations. These SVOC concentrations are typical for urban fill. Based on January, May and September 2015 groundwater sample results, reported CP-51 list VOCs and SVOCs in Site soils do not appear to significantly affect groundwater dissolved phase concentrations. Based on the analysis and conclusions presented above, LiRo recommends the following: The following actions will be conducted as part of the routine monitoring program until proposals below are approved by the NYSDEC: -Maintain schedule of bi-monthly (i.e. twice a month) Site-wide product gauging and EFR events at wells with observed product (current or if observed within the previous year). -Prepare and submit Semi-Annual Monitoring Reports with recommendations for changes (as necessary) to the Site Monitoring Program. -Collect semi-annual groundwater samples from accessible Site wells listed in the SMP and submit samples for analysis of the NYSDEC CP-51 list of VOCs. Proposals The following proposals require NYSDEC approval: 1) Consolidate Spill Nos. 1305932 and 1109339 into one Spill No. (e.g. 1109339). AD 02/22/2016: In the recent report LiRo states that: Based on recent (September 2015) and

historic soil sample results, VOCs are generally absent or at low concentrations (i.e. less than 25,000 ug/kg total VOCs) in Site soils. Similarly, SVOCs are typically found at low concentrations (i.e. less than 50,000 ug/kg total SVOCs) which is within the typical concentration range for urban soils. Based on January, May and September 2015 groundwater sample results, reported CP-51 list VOCs and SVOCs in Site soils do not contribute to groundwater dissolved phase contamination. Given the generally low concentrations in soil sample results, no additional soil sampling is warranted in relation to Spill No. 1305932 at this time. Taking into consideration most recent results of soil and groundwater investigation, DEC approved LiRo's proposal to consolidate Spill Nos. 1305932 and 1109339 into one Spill No. (e.g. 1109339). Spill No.1305932 associated with this property is closed. AD" "clean up pending"

Remarks:

All Materials: Site ID:

 Operable Unit ID:
 1236168

 Operable Unit:
 01

 Material ID:
 2235510

 Material Code:
 0066A

Material Name: unknown petroleum
Case No.: Not reported
Material FA: Petroleum
Quantity: Not reported

486521

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Distance	

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Units: Not reported Recovered: Not reported Oxygenate: Not reported